

IN THE DRAWINGS

Applicant has submitted a replacement sheet including a revised Fig. 5.

REMARKS

Election/Restrictions

The Examiner subjected claims 1-30 to a restriction requirement. The Examiner stated that the application contains claims directed to the following patentably distinct inventions:

- I. Claims 1-20, drawn to a memory cell, classified in class 257, subclass 295; and
- II. Claims 21-30, drawn to a method for constructing a memory cell, classified in class 438, subclass 3.

The Examiner required Applicant under 35 U.S.C. §121 to restrict the application to one of the above inventions.

During a telephone exchange with the Examiner, Applicant elected Group I for prosecution on the merits, without traverse.

Applicant hereby affirms this election and has accordingly canceled claims 21-30 which were directed to Group II.

Drawings

The Examiner objected to the drawings as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign mentioned in the description: 52 in Fig. 5.

Applicant has submitted a replacement sheet of drawings including a revised Fig. 5.

Specification

The Examiner has objected to the specification as failing to provide proper antecedent basis for the claimed subject matter.

The Examiner stated that the specification (see paragraph [0028]) needs to be amended to provide antecedence for the 600 to 1000 angstroms height range corresponding to the roughness formations as claimed in claims 9 and 18.

The specification has been appropriately amended.

35 U.S.C. § 102 Rejections

The Examiner has rejected claims 1-3 and 11 under 35 U.S.C. § 102(b) as being anticipated by Nishikawa.

Claims 1 and 11 have been amended to include first and second interface sections on opposing sides of the polymer having different thicknesses. Specifically, claim 1 includes the limitations "an interface material having first and second portions, the first portion...having a first thickness" and "the second portion...having a second thickness that is less than the first thickness." Claim 11 includes the limitations "a second layer...having a plurality of lower interface sections, each lower interface section being over at least a portion of at least one of the first conductive lines, each lower interface section having a first thickness" and "a fourth layer...having a plurality of upper interface sections, each upper interface section being adjacent to at least one of the polymeric sections, each upper interface

section having a second thickness that is greater than the height of the roughness formations and the first thickness.”

Nishikawa discloses a ferroelectric film having concave and convex patterns formed on both sides thereof corresponding to respective electrodes of a plurality of capacitors (Abstract). As shown in Fig. 1(g), an upper substrate 18 in which electrode layers 19 are formed on a lower surface thereof by an independent process is a line with the lower side substrate 14, such that the ferroelectric film 13 is sandwiched between the substrates to thereby closely bond the electrode layers 19 and the anisotropic conduction film 17 (paragraph [0032]). The anisotropic conduction film 17 becomes conductive at areas between upwardly extending convex sections of the ferroelectric film 13 and the electrode layers 19 because the film thickness of the anisotropic conduction film 17 becomes thin at these areas (paragraph [0032]). Nishikawa makes no mention of having an interface section on one side of the polymer with a first thickness and a second interface section on an opposing side of the polymer with a second thickness which is greater than the first thickness. Specifically, Nishikawa does not disclose first and second interface sections on opposing sides of the polymer having different thicknesses.

Therefore, claims 1 and 11 are not anticipated by Nishikawa because claims 1 and 11 include limitations that are not disclosed in Nishikawa.

Claims 2 and 3 are dependent on claim 1 and should be allowable for the same reasons as claim 1 stated above.

Applicant, accordingly, respectfully requests withdrawal of the rejections of claims 1-3 and 11 under 35 U.S.C. § 102(b) as being anticipated by Nishikawa.

The Examiner has rejected claims 1-20 under 35 U.S.C. § 102(e) as being anticipated by Li.

Claims 1 and 11 have been amended to include first and second interface sections on opposing sides of the polymer having different thicknesses. Specifically, claim 1 includes the limitation "an interface material having first and second portions, the first portion...having a first thickness" and "the second portion...having a second thickness that is less than the first thickness." Claim 11 includes the limitations "a second layer...having a plurality of lower interface sections, each lower interface section being over at least a portion of at least one of the first conductive lines, each lower interface section having a first thickness" and "a fourth layer...having a plurality of upper interface sections, each upper interface section being adjacent to at least one of the polymeric sections, each upper interface section having a second thickness that is greater than the height of the roughness formations and the first thickness."

Li discloses a polymer memory device that includes two organic adhesion layers that facilitate an integral package comprising a lower and an upper electrode and the ferroelectric polymer memory structure (Abstract). As illustrated in Fig. 4, the protective layer 24 may be reduced in vertical profile to leave a first or lower protective film 26 over the first electrode 18 (paragraph [0029]). The first protective

film 26 may be made of a material selected from metals, refractory metals, their alloys, their nitrides, oxides, carbides, and combinations thereof (paragraph [0030]). By way of non-limiting example, the first protective film 26 may be formed by ALCVD of TiN or TiO₂. The first protective film 26 may be in a thickness range from about 10 nanometers to about 100 nanometers, preferably from about 20 nanometers to about 50 nanometers (paragraph [0031]). As illustrated in Fig. 6, a second or upper protective film 36 and a second or upper electrode 38 are formed in a configuration commonly referred to as a "cross point" 40 (paragraph [0050]). The z-direction thickness of the second protective film 36 and second electrode 38 may match those of the first protective film 26 and the first electrode 18, respectively (paragraph [0051]). Li thus discloses upper and lower protective films having the same thicknesses. Specifically, Li does not disclose first and second interface sections on opposing sides of a polymer having different thicknesses.

Therefore, claims 1 and 11 are not anticipated by Li because claims 1 and 11 include limitations that are not disclosed in Li.

Claims 2-10 and 12-20 are dependent on either claim 1 or claim 11 and should be allowable for the same reasons as claims 1 and 11 stated above.

Applicant, accordingly, respectfully requests withdrawal of the rejections of claims 1-20 under 35 U.S.C. § 102(e) as being anticipated by Li.

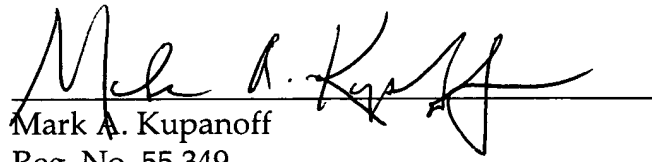
Applicant respectfully submits that the present application is in condition for allowance. If the Examiner believes a telephone conference would expedite or assist in the allowance of the present application, the Examiner is invited to call Mark A. Kupanoff at (408) 720-8300.

Pursuant to 37 C.F.R. 1.136(a)(3), Applicant hereby requests and authorizes the U.S. Patent and Trademark Office to (1) treat any concurrent or future reply that requires a petition for extension of time as incorporating a petition for extension of time for the appropriate length of time and (2) charge all required fees, including extension of time fees and fees under 37 C.F.R. 1.16 and 1.17, to Deposit Account No. 02-2666.

Respectfully submitted,

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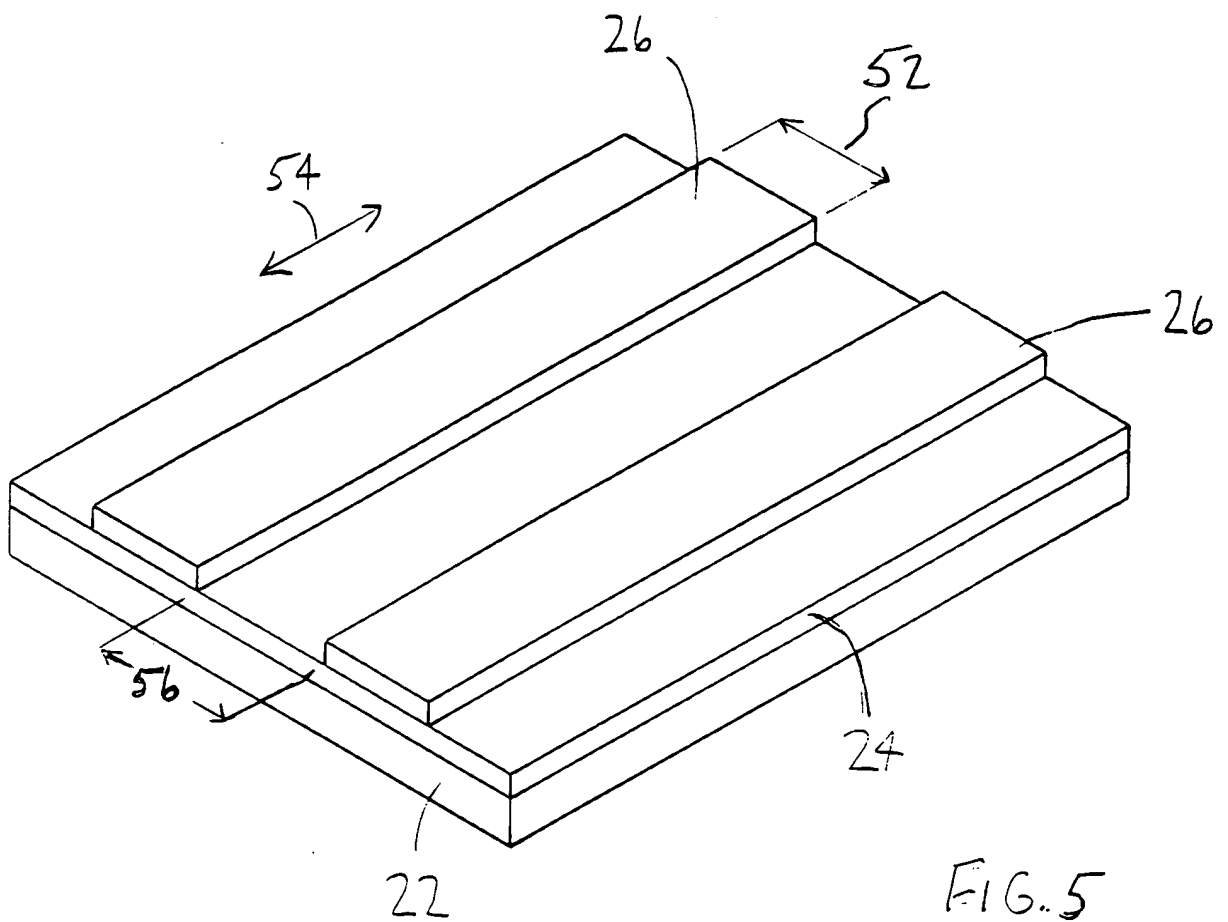
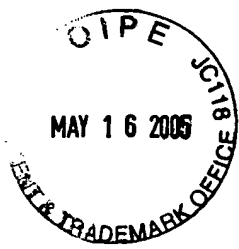


FIG. 5